

### AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions,  
and listings, of claims in the application.

Claim 1 (withdrawn) A method comprising the following successive steps:

1) synthesising at least one bifunctional alkenyloxyaryl or alkenylaryloxyaryl type compound with general formula  $[R-CH=CH-(X)-O]_n-Ar-Q$ ,

where Q is a group which reacts with hydrogen carried by a heteroatom selected from the group formed by oxygen, nitrogen and sulphur or a precursor of such a group, and where:

- n is in the range 1 to 20;
- R is hydrogen or a linear or branched alkyl group or a linear or branched alkoxy group or a hydroxyl or an aryl group, which may be substituted;
- X is a divalent linear alkyl group containing more than one carbon atom or a branched divalent alkyl group, or an aryl group, which may be substituted with at least one group selected from the group formed by hydrogen, alkyl, alkoxy, hydroxyl or trihalogenoalkyl groups;
- Ar is an aryl or polyaryl group, optionally substituted with at least one hydrogen atom or at least one group selected from the group formed by alkyl, alkoxy, hydroxyl, trihalogenoalkyl, silyl, thiol, amino, aminoalkyl, amide, nitro, nitrosamino, N-amino, aldehyde, acid or ester groups;

2) reacting at least one hydrogen of an alcohol, amine or thiol function of at least one chiral unit of a product with at least one group Q of the bifunctional compound of step 1), to synthesise at least one chiral compound.

Claim 2 (withdrawn) A method according to claim 1, in which group Q is selected from the group formed by the following groups:  $-N=C=O$  or a precursor thereof;  $-NH_2$ , or  $-CON_3$ ,  $-COC1$  or a precursor thereof;  $-COOH$ ;  $-N=C=S'$ ;  $-CH_2-Y$ , where Y is Cl or Br or I or methylsulphonyloxy or paratoluenesulphonyloxy or 3,5-dimethylphenylsulphonyloxy.

Claim 3 (withdrawn) A method according to claim 1, comprising a supplementary hydrosilylation step, before or after step 2), to transform at least a portion of the alkenyl

moieties  $R-CH=CH-$  using a silane  $(R_1, R_2, R_3)Si-H$  generally in the presence of a metallic complex derived from platinum or rhodium to  $(R_1, R_2, R_3)-Si-CH(R)-CH_2-$  moieties, where:

- $R_1$  is a hydrogen or a methoxy or ethoxy group or a halogen or an amino or alkylamino group;
- $R_2$  and  $R_3$ , which may be identical to or different from  $R_1$ , are alkoxy, hydroxyl, trihalogenoalkyl, linear or branched alkyl or aryl groups;
- $R$  is hydrogen or a linear branched alkyl group or a linear or branched alkoxy group or a hydroxyl group or an aryl group which may be substituted.

Claim 4 (withdrawn) A method according to claim 1, in which the chiral compound is physically deposited on a support to obtain a chiral support.

Claim 5 (withdrawn) A method according to claim 1, in which the chiral compound is deposited then grafted onto a support by covalent bonding, the support having been reacted with at least one group selected from the group formed by alkoxy, halogeno or aminosilane groups to form a derivative also carrying a function of the type  $-SH$ ,  $-SiH$  or  $-CH=CH-$ , with at least a portion of the alkenyl moieties, to obtain a chiral support.

Claim 6 (withdrawn) A method according to claim 4, in which the support is selected from the group formed by gel type supports of native or modified silica, oxides of zirconia, magnesium, aluminum or titanium, glass beads, carbons or any organic polymer.

Claim 7 (cancelled).

Claim 8 (withdrawn) A method according to claim 4, , in which the chiral support obtained in the third step is used in an operation for separating chiral compounds or preparing enantiomers.

Claim 9 (withdrawn) A method according to claim 8, in which said operation is selected from the following methods: liquid chromatography, gas chromatography, supercritical chromatography, subcritical chromatography, centrifugal chromatography, electrophoresis, electrochromatography, or any membrane separation process, also asymmetrical synthesis.

Claim 10 (withdrawn) A process for synthesising polymers comprising the following successive steps:

- 1) synthesising at least one bifunctional alkenyloxyaryl or alkenylaryloxyaryl type compound with general formula  $[R-CH=CH-(X)-O]_n-Ar-Q$ ,  
 where Q is a group selected from the group formed by the following groups:  $-N=C=O$  or a precursor thereof;  $-NH_2$  or  $-CON_3$ ;  $-COCl$  or a precursor thereof;  $-COOH$ ;  $-N=C=S$ ;  $-CH_2Y$ ,  
 where Y is Cl or Br or I or methylsulphonyloxy or paratoluenesulphonyloxy or 3,5-dimethylphenylsulphonyloxy, and where
  - n is in the range 1 to 20;
  - R is hydrogen or a linear or branched alkyl group or a linear or branched alkoxy group or a hydroxyl or an aryl group, which may be substituted;
  - X is a linear or branched alkyl group or an aryl group, which may be substituted with at least one group selected from the group formed by hydrogen, alkyl, alkoxy, hydroxyl and trihalogenoalkyl groups;
  - Ar is an aryl or polyaryl group, optionally substituted with at least one hydrogen atom or with a group selected from the group formed by alkyl, alkoxy, hydroxyl, trihalogenoalkyl, silyl, thiol, amino, aminoalkyl, amide, nitro, nitrosamino, N-amino, aldehyde, acid or ester groups;
- 2) polymerisation by the alkenyl moiety or by the  $R_1$  group of the bifunctional compound of step 1), to synthesize at least one polymer functionalised by a group Q.

Claims 11-20 (canceled)

Claim 21 (previously presented): A supported cross-linked chiral compound obtainable from a chiral compound according to claim 60, by physical deposition on a support.

Claims 22-24 (canceled)

Claim 25 (withdrawn) A supported cross-linked chiral compound according to claim 21, in which the support is selected from the group formed by gel type supports of native or modified silica, oxides or zirconia, magnesium, aluminum or titanium, glass beads, carbons or any organic polymer.

Claims 26-27 (canceled)

Claim 28 (withdrawn) A process for separating chiral compounds or for preparing enantiomers using a chiral chromatographic support obtained from claim 21, in an operation selected from the following methods: liquid chromatography, gas chromatography, supercritical chromatography, subcritical chromatography, centrifugal chromatography, electrophoresis, electrochromatography, or any membrane separation process, also asymmetrical synthesis.

Claim 29 (withdrawn) A method comprising the following successive steps:

1) providing at least one bifunctional alkenyloxyaryl or alkenylaryloxyaryl compound of the formula  $[R-CH=CH-(X)-O]_n-Ar-Q$ , where Q is a group which reacts with a hydrogen carried by a heteroatom selected from the group consisting of oxygen, nitrogen and sulphur or a precursor thereof, and where:

n is in the range 1 to 20;

R is hydrogen or a linear or branched alkyl group or a linear or branched alkoxy group or a hydroxyl or an optionally substituted aryl group,

X is a divalent linear alkyl group containing more than one carbon atom, or a branched divalent alkyl group, or an aryl group optionally substituted with at least one group selected from the group consisting of hydrogen, alkyl, alkoxy, hydroxyl and trihalogenoalkyl;

Ar is an aryl or polyaryl group, optionally substituted with at least one hydrogen atom or at least one group selected from the group consisting of alkyl, alkoxy, hydroxyl, trihalogenoalkyl, silyl, thiol, amino, aminoalkyl, amide, nitro, nitrosamino, N-amino, aldehyde, acid, and ester; and

2) reacting at least one chiral compound containing at least one hydrogen of an alcohol, amine or thiol function with at least one group Q of the bifunctional compound of step 1), to synthesize at least one chiral compound.

Claim 30 (withdrawn) A process according to claim 24, wherein said bifunctional compound is other than 4-allyloxyaniline, 4-allyoxybenzoic acid, an acid chloride of 4-allyoxybenzoic acid, and 4-allyoxyphenylisocyanate.

Claim 31 (withdrawn) A process according to claim 10, wherein said bifunctional compound is other than 4-allyloxyaniline, 4-allyoxybenzoic acid, an acid chloride of 4-allyoxybenzoic acid, and 4-allyoxyphenylisocyanate.

Claim 32 (withdrawn) A method comprising the following successive steps:

1) providing at least one bifunctional alkenyloxyaryl or alkenylaryloxyaryl compound with general formula  $[R-CH=CH-(X)-O]_n-Ar-Q$ ,

where Q is  $-N=C=O$  or a precursor thereof;  $-NH_2$  or  $-CON_3$ ;  $-COCl$  or its precursor;  $-COOH$ ;  $-N=C=S$ ; or  $-CH_2Y$ , where Y is Cl or Br or I or methylsulphonyloxy or para-toluenesulphonyloxy or 3,5-dimethylphenylsulphonyloxy and where:

- n is in the range 1 to 20;
- R is hydrogen or a linear or branched alkyl group or a linear or branched alkoxy group or hydroxyl or an aryl group, optionally substituted;
- X is a linear alkyl group carrying more than one carbon atom or a branched alkyl group, or an aryl group, optionally substituted with at least one group selected from the group consisting of hydrogen, alkyl, alkoxy, hydroxyl and trihalogenoalkyl groups; and
- Ar is an aryl or polyaryl group, optionally substituted with at least one hydrogen atom or with at least one group selected from the group consisting of alkyl, alkoxy, hydroxyl, trihalogenoalkyl, silyl, thiol, amino, aminoalkyl, amide, nitro, nitrosamino, N-amino, aldehyde, acid and ester groups,
- excluding the following compounds: 4-allyloxyaniline, 4-allyloxybenzoic acid, its acid chloride, and 4-allyloxyphenylisocyanate

2) reacting at least one chiral unit containing at least one hydrogen of an alcohol, amine or thiol function with at least one group Q of the bifunctional compound of step 1), to synthesize at least one chiral compound.

Claim 33 (withdrawn) A process for synthesizing polymers comprising the following successive steps:

1) providing at least one bifunctional alkenyloxyaryl or alkenylaryloxyaryl type compound with general formula  $[R-CH=CH-(X)-O]_n-Ar-Q$ ,

where Q is  $-N=C=O$  or a precursor thereof;  $-NH_2$  or  $-CON_3$ ;  $-COCl$  or its precursor;  $-COOH$ ;  $-N=C=S$ ; or  $-CH_2Y$ , where Y is Cl or Br or I or methylsulphonyloxy or para-toluenesulphonyloxy or 3,5-dimethylphenylsulphonyloxy and where:

- n is in the range 1 to 20;
- R is hydrogen or a linear or branched alkyl group or a linear or branched alkoxy group or hydroxyl or an aryl group, optionally substituted;
- X is a linear alkyl group carrying more than one carbon atom or a branched alkyl group, or an aryl group, optionally substituted with at least one group selected from the group consisting of hydrogen, alkyl, alkoxy, hydroxyl and trihalogenoalkyl groups; and
- Ar is an aryl or polyaryl group, optionally substituted with at least one hydrogen atom or with at least one group selected from the group consisting of alkyl, alkoxy, hydroxyl, trihalogenoalkyl, silyl, thiol, amino, aminoalkyl, amide, nitro, nitrosamino, N-amino, aldehyde, acid and ester groups,
- excluding the following compounds: 4-allyloxyaniline, 4-allyloxybenzoic acid, its acid chloride, and 4-allyloxyphenylisocyanate

2) conducting polymerization by the alkenyl moiety or by the R group of the bifunctional compound of step 1), to synthesize at least one polymer functionalized by a group Q.

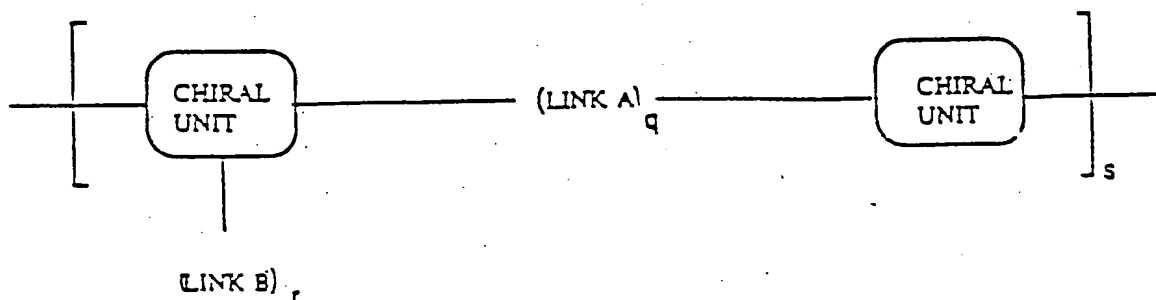
Claim 34 (withdrawn) A process comprising polymerizing and cross-linking a chiral compound by reacting at least one hydrogen of an alcohol, amine or thiol function of at least one chiral unit of a product with at least one group Q of the bifunctional compound with the general formula  $[R-CH=CH-(X)-O]_n-Ar-Q$ ,

where Q is a group which is reactive towards a hydrogen carried by a heteroatom selected from the group of oxygen, nitrogen or sulphur, or a precursor of such a group, and where:

- n is in the range 1 to 20;

- R is hydrogen or a linear or branched alkyl group or a linear or branched alkoxy group or hydroxyl or an aryl group, optionally substituted;
- X is a linear alkyl group carrying more than one carbon atom or a branched alkyl group, or an aryl group, optionally substituted with at least one group selected from the group of hydrogen, alkyl, alkoxy, hydroxyl or trihalogenoalkyl groups; and
- Ar is an aryl or polyaryl group, optionally substituted with at least one hydrogen atom or with at least one group selected from the group of alkyl, alkoxy, hydroxyl, trihalogenoalkyl, silyl, thiol, amino, amino, aminoalkyl, amide, nitro, nitrosamino, N-amino, aldehyde acid or ester groups

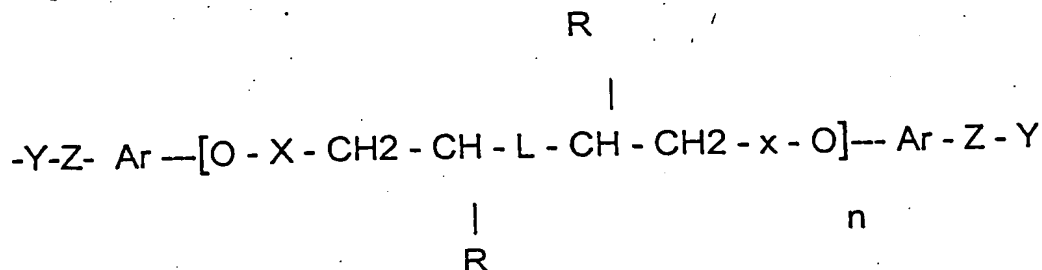
excluding the following compounds: 4-allyloxyaniline, 4-allyloxybenzoic acid, its acid chloride, and 4-allyloxyphenylisocyanate or its ester, amide, urea, carbamate, thioester or thiocarbamate derivatives with general formula (I):



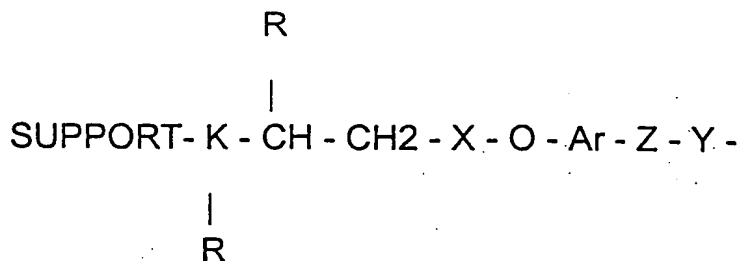
where:

- q is at least 1 and less than 20;
- s is at least 1 and less than 20000;
- if  $r = 0$ , the compound is a pure cross-linked chiral polymer, oligomer or monomer;
- if  $r \geq 1$ , the compound is a chiral polymer, oligomer or monomer which is cross-linked in a three-dimensional network and bonded to a cross-linked support;

LINK A represents:

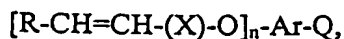


Link B represents:



- "chiral unit" represents a monomeric, oligomeric, cyclooligomeric or polymeric chiral compound and optionally comprises a primary or secondary amine function or a primary, secondary or tertiary hydroxyl function or a sulphhydryl function and in which all or a portion of these functions have optionally been modified to the ester, amide, urea, carbamate, thioester or thiocarbamate;
- Z represents a -CH<sub>2</sub>- group or a -CO- group or a -NH-CO- group or a -NH-CS- group;
- Y represents a sulphur or oxygen atom or the amino group;
- n is in the range 1 to 20;
- Ar represents an aryl or polyaryl group
- X represents an alkyl or aryl group;
- R represents an alkyl group or hydrogen;
- L represents a single bond or a bis-sulphhydryl or a silane or an ethylene group which may be substituted or a disiloxane;
- K represents a single bond or a siloxane or a silane;
- "support" represents an organic or mineral support; functionalized by an alkene or a hydrogenosilane or a sulphhydryl.

Claim 35 (withdrawn) A process for polymerizing and cross-linking a chiral compound by reacting at least one hydrogen of an alcohol, amine or thiol function of at least one chiral unit of a product with at least one group Q of the bifunctional compound with the general formula

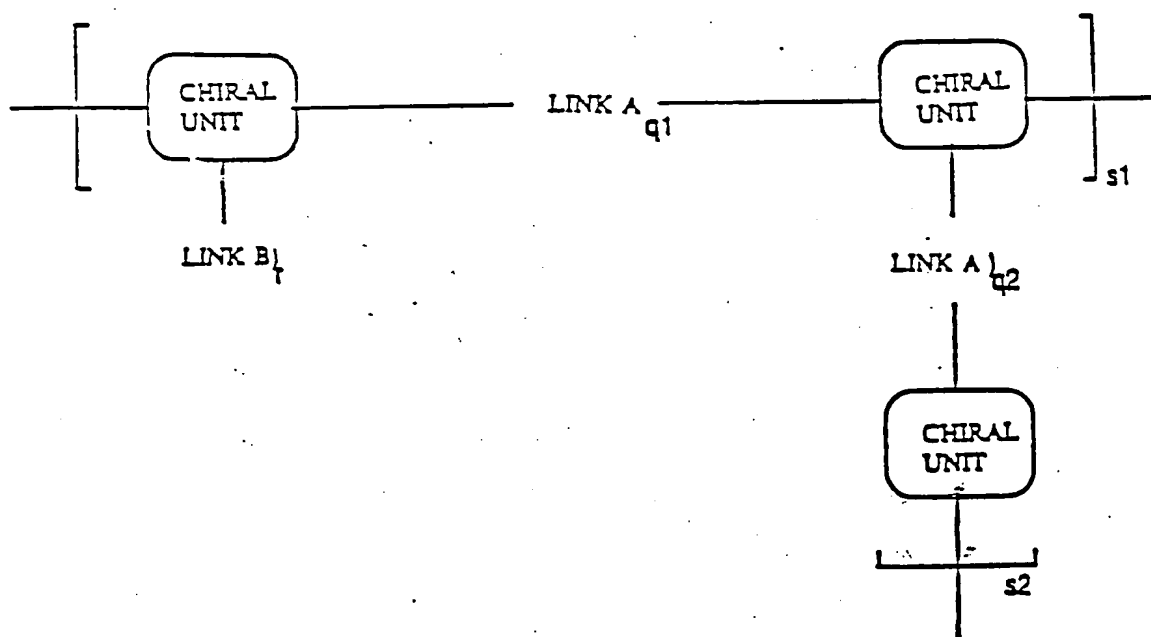


where Q is a group which is reactive towards a hydrogen carried by a heteroatom selected from the group of oxygen, nitrogen or sulphur, or a precursor of such a group, and where



- n is in the range 1 to 20;
- R is hydrogen or a linear or branched alkyl group or a linear or branched alkoxy group or hydroxyl or an aryl group, optionally substituted;
- X is a linear alkyl group carrying more than one carbon atom or a branched alkyl group, or an aryl group, optionally substituted with at least one group selected from the group of hydrogen, alkyl, alkoxy, hydroxyl or trihalogenoalkyl groups; and
- Ar is an aryl or polyaryl group, optionally substituted with at least one hydrogen atom or with at least one group selected from the group of alkyl, alkoxy, hydroxyl, trihalogenoalkyl, silyl, thiol, amino, amino, aminoalkyl, amide, nitro, nitrosamino, N-amino, aldehyde acid or ester groups

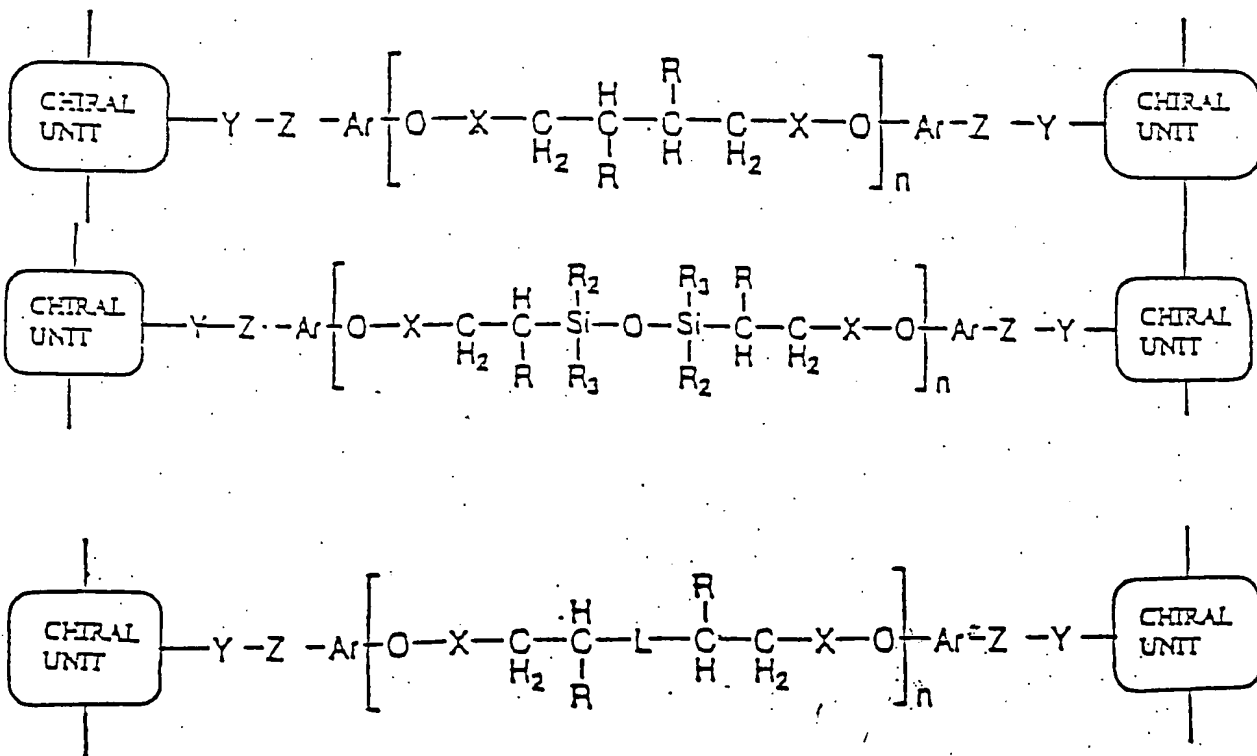
excluding the following compounds: 4-allyloxyaniline, 4-allyloxybenzoic acid, its acid chloride, and 4-allyloxyphenylisocyanate or its ester, amide, urea, carbamate, thioester or thiocarbamate derivatives, with general formula:



- n is in the range 1 to 20;
- Ar represents an aryl or polyaryl group
- X represents an alkyl or aryl group;
- R represents an alkyl group or hydrogen;

- L represents a single bond or a bis-sulphhydryl or a silane or an ethylene group which may be substituted or a disiloxane;
- K represents a single bond or a siloxane or a silane; and
- "support" represents an organic or mineral support; functionalized by an alkene or a hydrogenosilane or a sulphhydryl.

Claim 36 (withdrawn) A process according to claim 18 wherein said polymerized and cross-linked chiral compounds has the following formulae:



Claim 37 (withdrawn) A method according to claim 32, wherein the bifunctional compound is parapent-4-enoxybenzoic acid.

Claim 38 (withdrawn) A process according to claim 33, wherein the bifunctional compound is parapent-4-enoxybenzoic acid.

Claim 39 (withdrawn) A process according to claim 34, wherein the bifunctional compound is parapent-4-enoxybenzoic acid.

Claim 40 (withdrawn) A process according to claim 35, wherein the bifunctional compound is parapent-4-enoxybenzoic acid.

Claim 41 (withdrawn) A process according to claim 36, wherein the bifunctional compound is parapent-4-enoxybenzoic acid.

Claim 42 (withdrawn) A method according to claim 1, wherein the bifunctional compound is parapent-4-enoxybenzoic acid.

Claim 43 (withdrawn) A method according to claim 3, wherein the bifunctional compound is parapent-4-enoxybenzoic acid.

Claim 44 (withdrawn) A method according to claim 5, wherein the bifunctional compound is parapent-4-enoxybenzoic acid.

Claim 45 (withdrawn) A chiral compound according to claim 18, wherein the bifunctional compound is p-(4-pentenyl)oxybenzoic acid.

Claim 46 (withdrawn) A cross-linked chiral compound according to claim 19, wherein the compound is p-(4-pentenyl)benzoic acid.

Claim 47 (withdrawn) A supported cross-linked chiral compound according to claim 21, wherein the compound is p-(4-pentenyl)benzoic acid.

Claim 48 (withdrawn) A process according to claim 28, wherein the bifunctional compound is parapent-4-enylbenzoic acid.

Claim 49 (canceled).

Claim 50 (withdrawn) A chiral compound which can be obtained by hydrosilylation of the chiral compound of claim 18 to transform at least a portion of the alkenyl moieties  $R-CH=CH-$  using a silane  $(R_1, R_2, R_3)Si-H$  generally in the presence of a metallic complex derived from platinum or rhodium to  $(R_1, R_2, R_3)-Si-CH(R)-CH_2-$  moieties, where:

- $R_1$  is a hydrogen or a methoxy or ethoxy group or a halogen or an amino or alkylamino group;
- $R_2$  and  $R_3$ , which may be identical to or different from  $R_1$ , are alkoxy, hydroxyl, trihalogenoalkyl, linear or branched alkyl or aryl groups;
- $R$  is hydrogen or a linear branched alkyl group or a linear or branched alkoxy group or a hydroxyl group or an aryl group which may be substituted.

Claim 51 (withdrawn) A chiral compound which can be obtained by hydrosilylation of the bifunctional chiral compound of claim 18, to transform at least a portion of the alkenyl moieties  $R-CH=CH-$  using a silane  $(R_1, R_2, R_3)-Si-H$  generally in the presence of a metallic complex derived from a platinum or rhodium to  $(R_1, R_2, R_3)-Si-CH(R)-CH_2-$  moieties, where:

- $R_1$  is a hydrogen or an alkoxy group or a halogen or an amino or alkylamino group;
- $R_2$  and  $R_3$ , which may be identical to or different from  $R_1$ , are alkoxy, hydroxyl, trihalogenoalkyl, linear or branched alkyl or aryl groups;

then by reacting at least one hydrogen of an alcohol, amine or thiol function of at least one chiral unit of a product with at least one group Q of the compound of claim 11 or claim 12.

Claim 52 (withdrawn) A chiral compound which can be obtained by hydrosilylation of an analogous bifunctional compound to the compound according to claim 18, where X represents a methylene group, to transform at least a portion of the alkenyl moieties R-CH=CH- using a silane (R<sub>1</sub>, R<sub>2</sub>, R<sub>3</sub>)Si-H generally in the presence of a metallic complex derived from platinum or rhodium to (R<sub>1</sub>, R<sub>2</sub>, R<sub>3</sub>)Si-CH(R)-CH<sub>2</sub>- moieties, where:

- R<sub>1</sub> is a hydrogen or a methoxy or ethoxy group or a halogen or an amino or alkylamino group;
- R<sub>2</sub> and R<sub>3</sub>, which may be identical to or different from R<sub>1</sub>, are as defined in claim 15.

Claims 53-54 (canceled)

Claim 55 (withdrawn) A cross-linked chiral compound which can be obtained by hydrosilylation of the chiral compound of claim 19 to transform at least a portion of the alkenyl moieties R-CH=CH- using a silane (R<sub>1</sub>, R<sub>2</sub>, R<sub>3</sub>)Si-H generally in the presence of a metallic complex derived from platinum or rhodium to (R<sub>1</sub>, R<sub>2</sub>, R<sub>3</sub>)-Si-CH(R)-CH<sub>2</sub>- moieties, where:

- R<sub>1</sub> is a hydrogen or a methoxy or ethoxy group or a halogen or an amino or alkylamino group;
- R<sub>2</sub> and R<sub>3</sub>, which may be identical to or different from R<sub>1</sub>, are alkoxy, hydroxyl, trihalogenoalkyl, linear or branched alkyl or aryl groups;
- R is hydrogen or a linear branched alkyl group or a linear or branched alkoxy group or a hydroxyl group or an aryl group optionally substituted.

Claim 56 (withdrawn) A chiral compound which can be obtained by hydrosilylation of the bifunctional chiral compound of claim 19, to transform at least a portion of the alkenyl moieties  $R-CH=CH-$  using a silane  $(R_1, R_2, R_3)-Si-H$  generally in the presence of a metallic complex derived from a platinum or rhodium to  $(R_1, R_2, R_3)-Si-CH(R)-CH_2-$  moieties, where:

- $R_1$  is a hydrogen or an alkoxy group or a halogen or an amino or alkylamino group;
- $R_2$  and  $R_3$ , which may be identical to or different from  $R_1$ , are alkoxy, hydroxyl, trihalogenoalkyl, linear or branched alkyl or aryl groups;

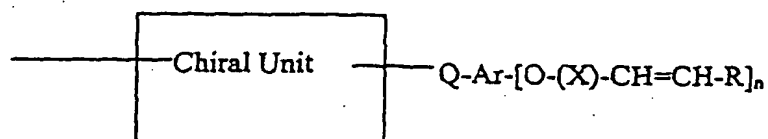
then by reacting at least one hydrogen of an alcohol, amine or thiol function of at least one chiral unit of a product with at least one group Q of the compound of claim 11 or claim 12.

Claim 57 (withdrawn) A chiral compound which can be obtained by hydrosilylation of an analogous bifunctional compound to the compound according to claim 19, where X represents a methylene group, to transform at least a portion of the alkenyl moieties  $R-CH=CH-$  using a silane  $(R_1, R_2, R_3)Si-H$  generally in the presence of a metallic complex derived from platinum or rhodium to  $(R_1, R_2, R_3)Si-CH(R)-CH_2-$  moieties, where:

- $R_1$  is a hydrogen or a methoxy or ethoxy group or a halogen or an amino or alkylamino group;
- $R_2$  and  $R_3$ , which may be identical to or different from  $R_1$ , are as defined in claim 15.

Claims 58-59 (canceled).

Claim 60. (currently amended) : A cross-linked chiral compound made by reacting at least one functional group of at least one chiral unit with a compound of the formula I:  $[RCH=CH-(X)-O]_n-Ar-Q$ , to create a polymerizable precursor:



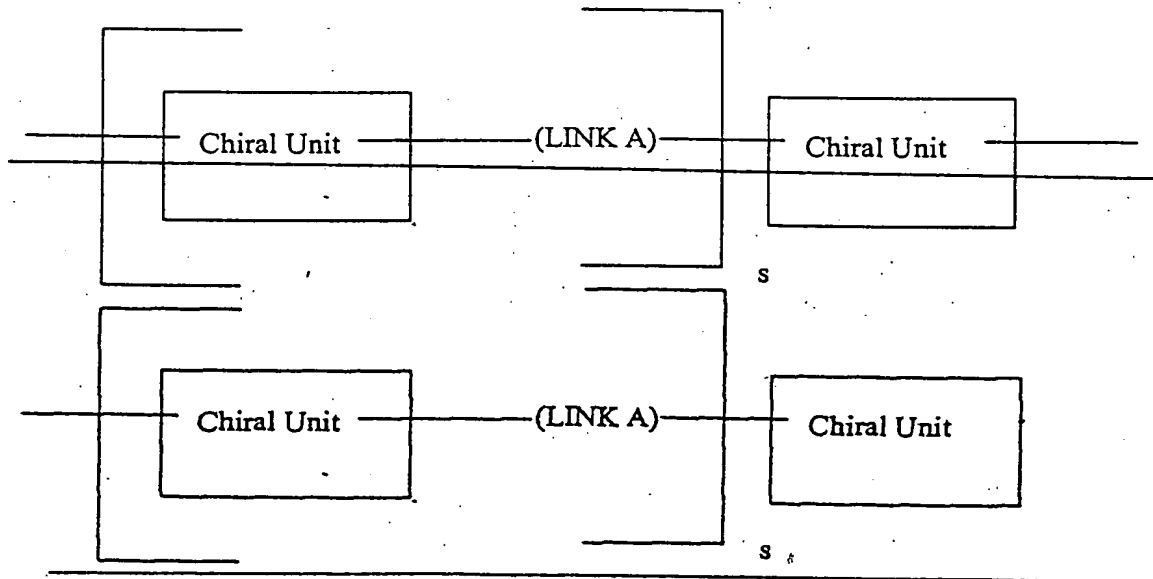
and polymerizing the precursor to create a cross-linked chiral compound where:

- chiral unit is a monomeric, oligomeric, cyclooligomeric or polymeric chiral radical and wherein the radical optionally comprises a primary or secondary amine function or a primary, secondary or tertiary hydroxyl function or a sulphhydryl function and in which all or a portion of these functions have optionally been modified to the ester, amide, urea, carbamate, thioester or thiocarbamate wherein the chiral unit optionally has 2 or more functional groups reactable with a compound of formula I or a compound linkable to a support;
- Q is a group ~~comprising~~ which is reactive towards a hydrogen carried by a heretoatom selected from the group consisting of oxygen, nitrogen and ~~or~~ sulphur, or a precursor of such a group;
- Ar is an arylene or polyarylene optionally substituted with at least one group selected from the group

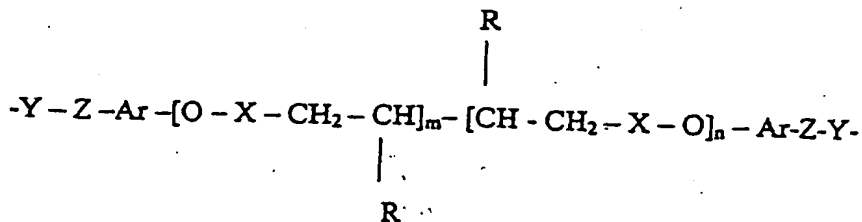
consisting of alkyl, alkoxy, hydroxyl, trihalogenoalkyl, silyl, thiol, amino, aminoalkyl, amide, nitro, nitrosamino, N-amino, aldehyde, acid ~~or an~~ and ester groups;

- X is a linear alkylene group carrying more than one carbon atom, a branched alkylene group, or an arylene group, optionally substituted with at least one group selected from the group consisting of alkyl, alkoxy, hydroxyl ~~or a~~ and trihalogenoalkyl groups;
- R is hydrogen, a linear or branched alkyl group, a linear or branched alkoxy group, a hydroxyl or an aryl group, optionally substituted; and
- n is in the range 1 to 20.

Claim 61 (currently amended): A cross-linked chiral compound according to claim 60 wherein the polymerizable precursor reacts to create a LINK A between two chiral units:



wherein LINK A is:





where the chiral unit, Ar, X and R are defined as in claim 60 and

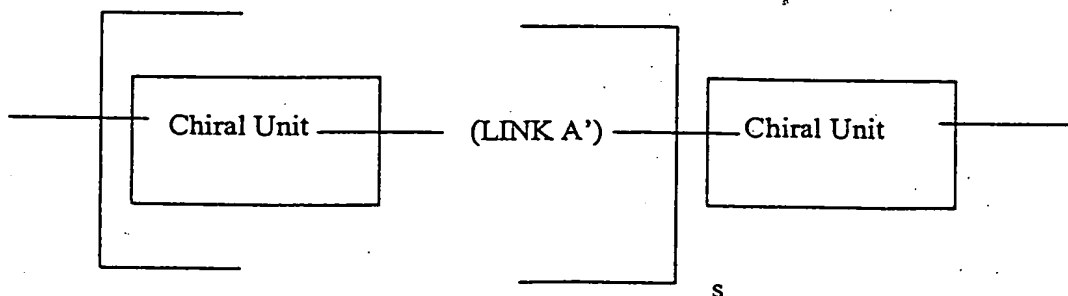
- Z is a  $-\text{CH}_2-$  group, a  $-\text{CO}-$  group, a  $-\text{NH}-\text{CO}-$  group, or a  $-\text{NH}-\text{CS}-$  group;
- m is 1 - 20;
- n is 1 - 20;
- s is at least 1 and less than 20000; and
- Y is a sulphur or oxygen atom or the amino group.

Claim 62 (previously presented) A hydrosilylated compound made by hydrosilylating a polymerizable precursor of a chiral compound according to claim 60 with a silane of the formula  $(\text{R}_1, \text{R}_2, \text{R}_3)\text{Si}-\text{H}$ ; where

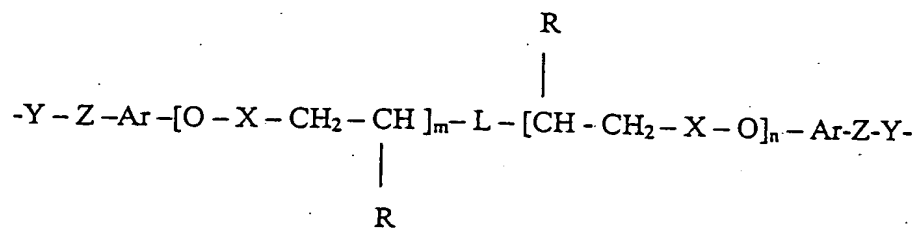
$\text{R}_1$  is hydrogen, an alkoxy group, a halogen, or an amino or alkylamino group; and

$\text{R}_2$  and  $\text{R}_3$ , which may be identical to or different from  $\text{R}_1$  to transform at least a portion of the alkenyl moieties  $\text{R}-\text{CH}=\text{CH}-$ , are alkoxy, hydroxyl, trihalogenoalkyl, linear or branched alkyl or aryl groups.

Claim 63 (previously presented) A cross-linked compound according to claim 60 wherein the hydrosilylated polymerizable precursor reacts to create a LINK A' between two chiral units:



wherein LINK A' is:



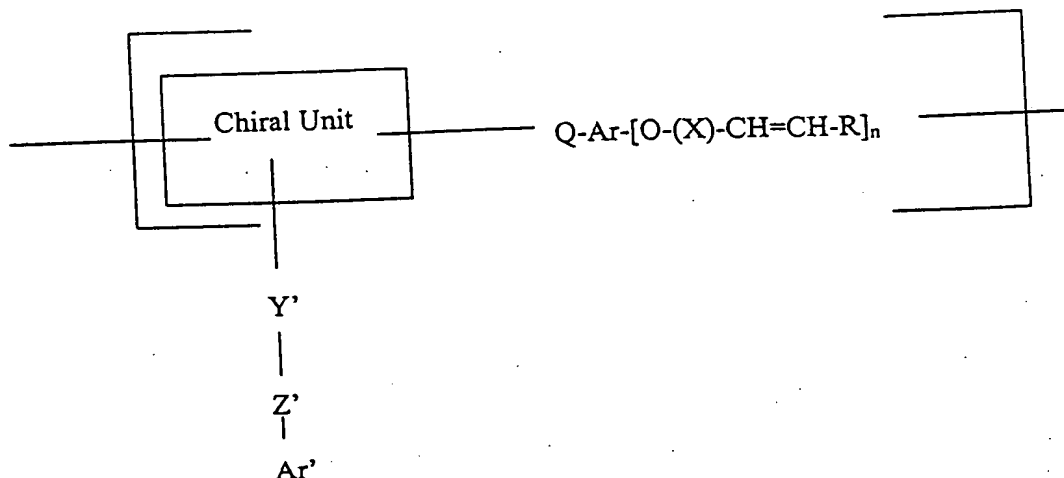
where the chiral unit, Ar, X and R are defined as in claim 60 and

- Z is a -CH<sub>2</sub>- group, a -CO- group, a -NH-CO- group, or a -NH-CS- group;
- m is 1-20;
- n is 1 - 20;
- s is at least 1 and less than 20000;
- L is a silicylene; and
- Y is a sulphur or oxygen atom or the amino group.

Claim 64 (previously presented) A cross-linked compound, made by reacting the at least one chiral unit according to claim 60 with:

a compound of the formula I: [R-CH=CH-(X)-O]<sub>n</sub>-Ar-Q where R, X, n, Ar, and Q are defined as in claim 60, and

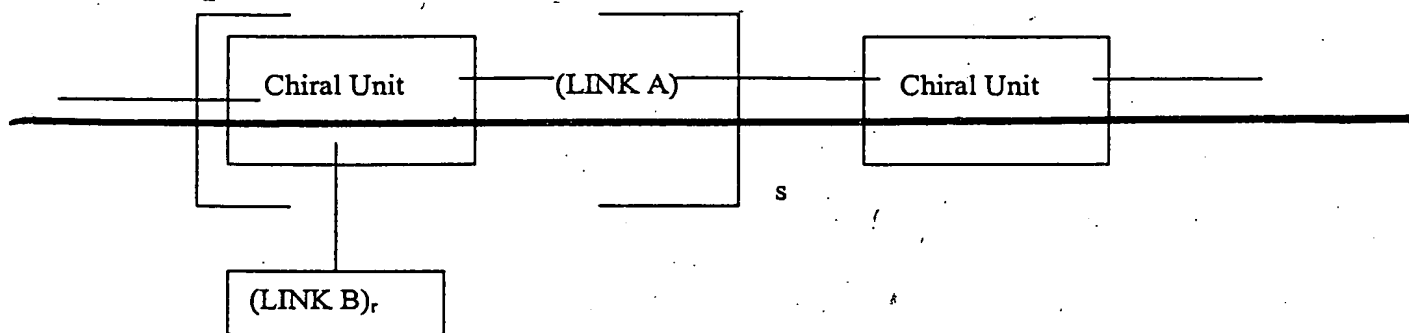
a compound of the formula II: Ar'-Z' to make a polymerizable precursor of the formula III where Ar' is an aryl or polyaryl group optionally substituted by at least one alkyl and Z' is a -CH<sub>3</sub> group, a -COH group, a -NCO- group, or a -NCS- group:

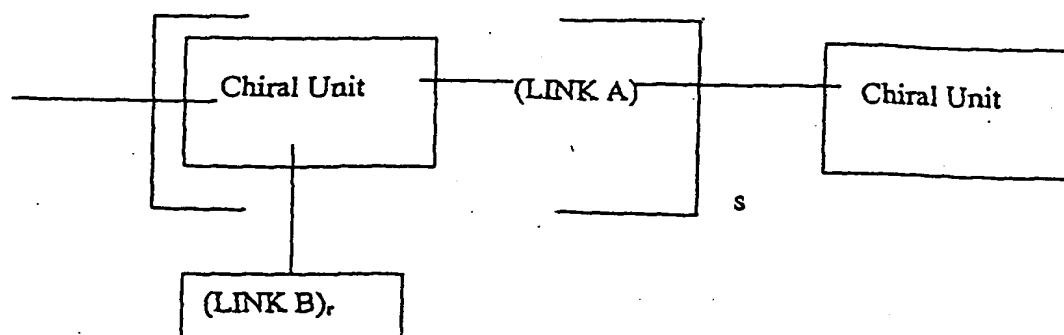


where:

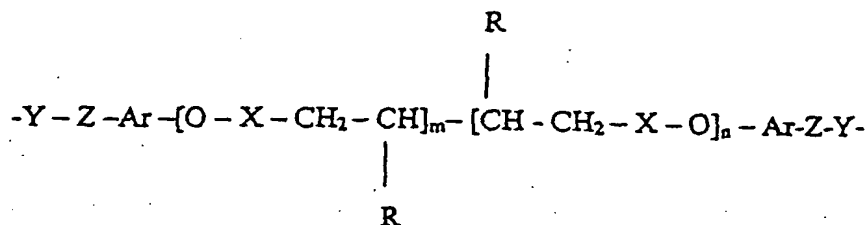
- Y' is a sulphur or oxygen atom, or the amino group; and
- Z' is a -CH<sub>2</sub>- group, a -CO- group, a -NH-CO- group, or a -NH-CS- group; and
- Ar' is aryl or polyaryl group.

Claim 65 (currently amended) : A cross-linked chiral compound linked to a support, made by reacting and polymerizing a polymerizable precursor of the formula III as in claim 64, to make a cross-linked chiral compound linked to a support:



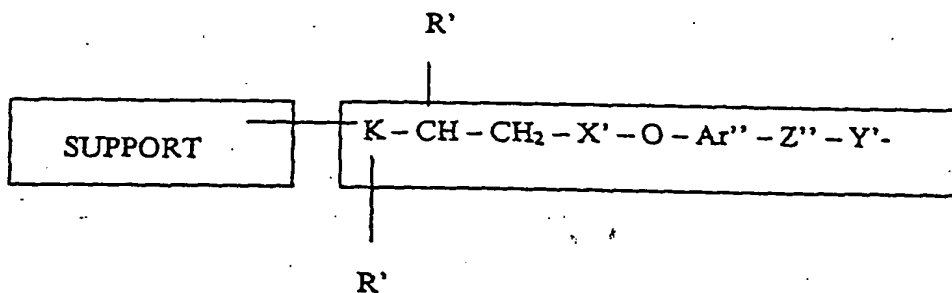


wherein LINK A is:



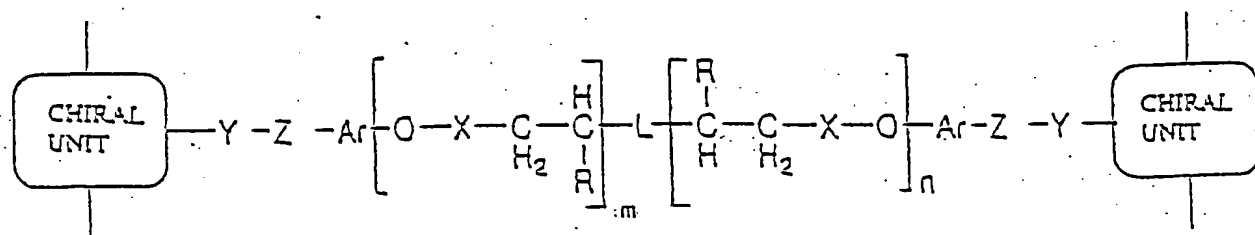
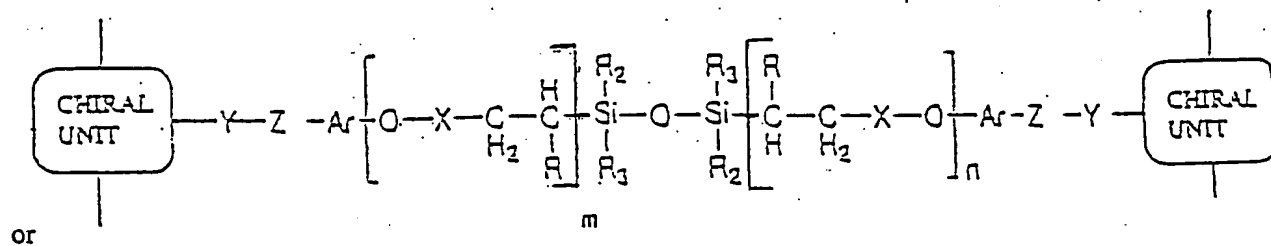
where the chiral unit, Ar, X and R are defined as in claim 60 and

- Z is a  $-\text{CH}_2-$  group, a  $-\text{CO}-$  group, a  $-\text{NH}-\text{CO}-$  group, or a  $-\text{NH}-\text{CS}-$  group;
  - m is 1 - 20;
  - n is 1 - 20;
  - r is  $\geq 1$ ;
  - s is at least 1 and less than 20000; and
  - Y is a sulphur or oxygen atom or the amino group; and
- wherein LINK B is:

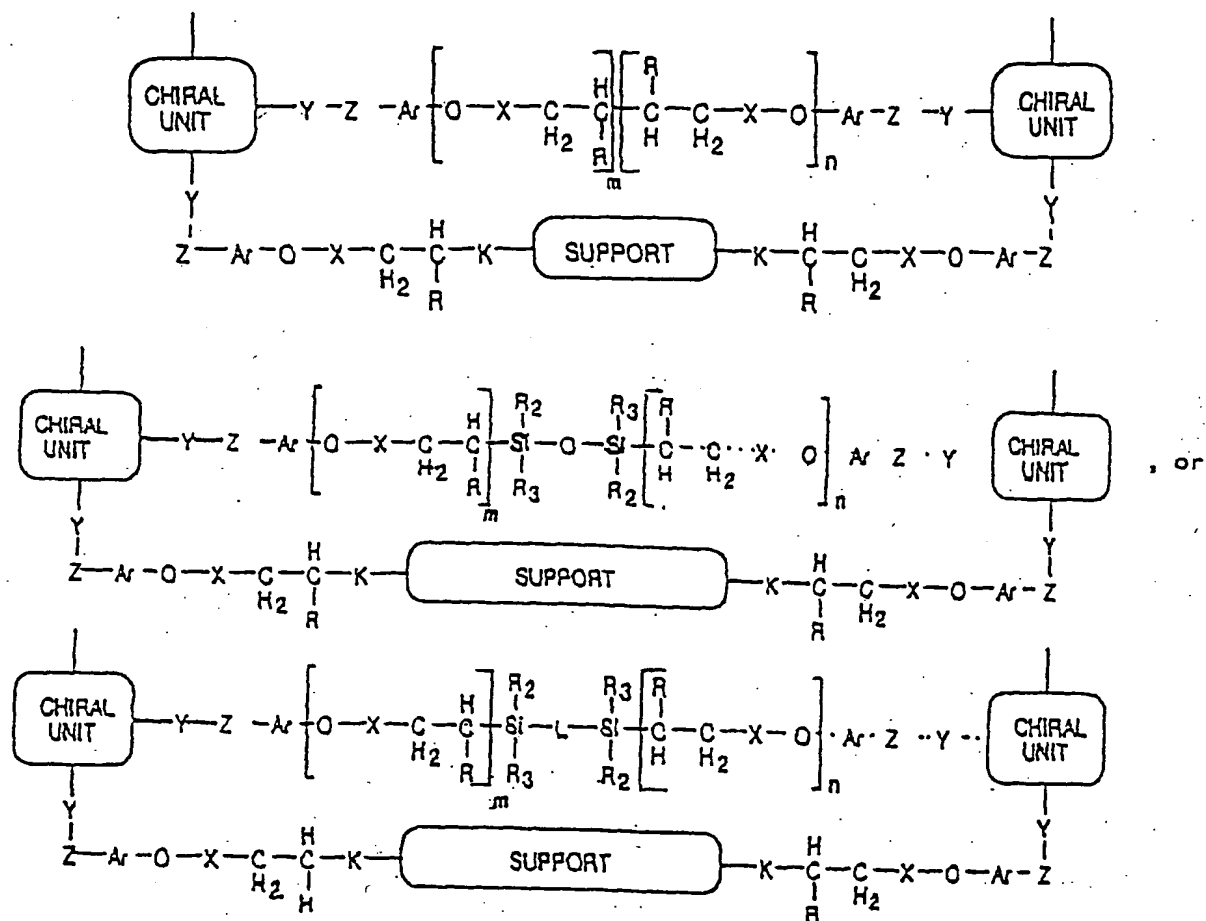




Claim 68 (previously presented) A cross-linked chiral compound according to claim 63, having the following formulae:



Claim 69 (currently amended): A cross-linked chiral compound having the following formulae:



where:

- a chiral unit is a monomeric, oligomeric, cyclooligomeric or polymeric chiral radical and wherein the radical optionally comprises a primary or secondary amine function or a primary, secondary or tertiary hydroxyl function or a sulphhydryl function and in which all or a portion of these functions have optionally been modified to the ester, amide, urea, carbamate, thioester or thiocarbamate wherein the chiral unit optionally has 2 or more functional groups

reactable with a compound of formula I or a compound linkable to a support;

- Ar is an arylene or polyarylene optionally substituted with at least one group selected from the group ~~formed by~~ consisting of alkyl, alkoxy, hydroxyl, trihalogenoalkyl, silyl, thiol, amino, aminoalkyl, amide, nitro, nitrosamino, N-amino, aldehyde, acid and ester groups;
- X is a linear alkylene group carrying more than one carbon atom, a branched alkylene group, or an arylene group, optionally substituted with at least one group selected from the group ~~formed by~~ consisting of alkyl, alkoxy, hydroxyl and trihalogenoalkyl groups;
- R is hydrogen, a linear or branched alkyl group, a linear or branched alkoxy group, a hydroxyl or an aryl group, optionally substituted;
- Z is a  $-CH_2-$  group, a  $-CO-$  group, a  $-NH-CO-$  group, a  $-NH-CS-$  group;
- m is 1 - 20;
- n is 1 - 20;
- Y is a sulphur or oxygen atom or the amino group;
- L is a silicylene;
- $R_2$  and  $R_3$  are independently, alkoxy, hydroxyl, trihalogenoalkyl, linear or branched alkyl or aryl groups;
- K is a single bond, a siloxane, or a silane; and
- "support" is an organic or mineral support; functionalized by an alkene or a hydrogenosilane or a sulphhydryl.

Claim 70 (currently amended): A supported cross-linked chiral compound obtainable from a chiral compound according to claim 65 and a support, said support having been reacted with at least one group ~~of an~~ selected from the group consisting of alkoxy, a



halogeno or an aminosilane groups and comprising, said group also comprising a function selected from the group consisting of -SH, -SiH or -CH=CH<sub>2</sub>.

Claim 71 (previously presented): A supported cross-linked chiral compound comprising at least one chiral compound according to claim 61 and at least one support.

Claim 72 (previously presented): A supported cross-linked chiral compound according to claim 65, in which the chiral compound is chemically bonded to said support, using at least one covalent chemical bond.

Claim 73 (previously presented) A supported cross-linked chiral compound obtainable from a chiral compound according to claim 60 by polymerization, generally by cross-linking at least a portion of the alkenyl moieties of said chiral compound to obtain polymer beads.

Claim 74 (previously presented) A supported cross-linked chiral compound comprising beads of a chiral compound according to claim 61.

Claim 75 (currently amended): A cross-linked chiral compound according to claim 61, in which group Q is selected from the group formed by one of the following groups: ~~-N=C=O~~ -N(C=O) or a precursor thereof; -NH<sub>2</sub> or -CON<sub>3</sub>; -COCl or its precursor; -COOH; ~~-N=C=S~~ -N(C=S); or -CH<sub>2</sub>Y, where Y is Cl, Br, I, methylsulphonyloxy, para-toluenesulphonyloxy, or 3,5-dimethylphenylsulphonyloxy.

Claim 76 (amended): A cross-linked chiral compound according to claim 61, in which said chiral unit of a product is a glycosidic unit of a product selected from the group consisting of a holosides, a heteroholosides, ~~an~~ oligosides, a cyclooligosides, a heterooligosides, a polyosides, a heteropolyosides, ~~an~~ enzymes ~~or a~~ and proteins.

Claim 77 (previously presented) A cross-linked chiral compound according to claim 64, in which group Q is selected from the group formed by one of the following groups:  $\text{-N=C=O}$  or a precursor thereof;  $\text{-NH}_2$  or  $\text{-CON}_3$ ;  $\text{-COCl}$  or its precursor;  $\text{-COOH}$ ;  $\text{-N=C=S}$ ; or  $\text{-CH}_2\text{Y}$ , where Y is Cl, Br, I, methylsulphonyloxy, para-toluenesulphonyloxy or 3,5-dimethylphenylsulphonyloxy.

Claim 78 (previously presented) A cross-linked chiral compound according to claim 64, in which said chiral unit of a product is a glycosidic unit of a product selected from holosides, heteroholisides, oligosides, cyclooligosides, heterooligosides, polyosides, heteropolyosides, enzymes and proteins.

Claim 79 (previously presented) A crosslinked chiral compound according to claim 60, in which the chiral compound is polymerized by cross-linking at least a portion of the alkenyl moieties to obtain polymer beads which essentially constitute a chiral support.